50 F St. NW, Suite 750
Washington, D.C. 20001

T. 202-737-7950
F. 202-273-7951

www.aopa.org

May 29, 2018

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: GN Docket No. 18-122; Report on the Feasibility of Allowing Commercial Wireless Services, Licensed Or Unlicensed, to Use or Share Use of the Frequencies Between 3.7-4.2 GHz.

To the Commission:

The Aircraft Owners and Pilots Association (AOPA), the world's largest aviation membership association, submits the following comment on the feasibility of allowing commercial wireless services, licensed or unlicensed, to use or share use of the frequencies between 3.7-4.2 GHz. We believe it is important the Federal Communications Commission and National Telecommunications and Information Administration carefully consider the possible adverse effects on aviation radio altimeters in the adjacent band when planning any changes to the 3.7-4.2 GHz spectrum band. A radio altimeter, which is an airborne electronic device capable of measuring the height of the aircraft above terrain immediately below the aircraft, is critical to the safety of flight for thousands of aircraft and to the safe transportation of millions of passengers each year. We encourage the Commission to engage with the Federal Aviation Administration (FAA) to ascertain the impact on radio altimeters of adjacent spectrum band changes before a final decision is made.

Radio altimeters have become an important safety technology for commercial and General Aviation, including airplanes and helicopters. According to the FAA's 2014 General Aviation survey, over 39,000 General Aviation aircraft are equipped with a radio altimeter. Over 30,000 aircraft use the radio altimeter to provide critical terrain closure information for the Ground Proximity Warning System (GPWS), Enhanced Ground Proximity Warning System (EGPWS), and Terrain Awareness and Warning System (TAWS) that many pilots use as a defense to controlled flight into terrain. Following civil aviation embracing this technology and equipping, National Transportation Safety Board data shows controlled flight into terrain accidents have decreased significantly. Radio altimeters are integral to aviation's ground avoidance technology.

In recognition of their lifesaving properties, radio altimeters have been referenced hundreds of times in NASA's Aviation Safety Reporting System database, which is the FAA's voluntary confidential reporting system for pilots. Pilots have documented many cases where the radio altimeter-fed GPWS, EGPWS, or TAWS system provided a critical alert that prevented an accident. In a recent example from Christmas Eve 2017, a Skywest regional jet descending into Medford, OR, erroneously dropping below the required minimum altitude. The flight crew received a GPWS warning and began an immediate climb, which likely prevented an accident. There are many other examples that show radio altimeter technology has prevented accidents and saved lives.

AOPA recognizes the importance of facilitating spectrum utilization and innovation by commercial entities. However, the lifesaving importance of the radio altimeter to aviation cannot be understated. We believe it is unconscionable to adversely impact this system's ability to operate. We encourage the Commission to investigate, in coordination with the FAA, the adverse impact on radio altimeters of the use of the adjacent spectrum band and to ensure existing radio altimeter systems will be protected.

Thank you for reviewing our comment on this important issue. Please feel free to contact me at 202-509-9515 if you have any questions.

Sincerely,

Rune Duke
Senior Director, Airspace and Air Traffic

The Aircraft Owners and Pilots Association (AOPA) is a not-for-profit individual membership organization of General Aviation Pilots and Aircraft Owners. AOPA's mission is to effectively serve the interests of its members and establish, maintain and articulate positions of leadership to promote the economy, safety, utility, and popularity of flight in General Aviation aircraft. Representing two-thirds of all pilots in the United States, AOPA is the largest civil aviation organization in the world.